enumerated; it seems likely that all, to some extent, will be found to be genetically determined. The environmental component may be considerably larger than for intelligence, this will necessarily reduce the efficiency of attempts at genetic improvement and may well suggest that attention would better be concentrated on environmental bettering of phenotypes.

(3) This is, I suspect, a somewhat easier question to answer than the first two; nevertheless it is clear that an objective rating of a number of the characteristics given in Muller's list would

be quite difficult.

One final point I want to make is this. Who decides for whom? It is suggested that participation both by donors and recipients be entirely voluntary. There are, I suggest, two potential dangers, the first is perhaps minor, but we should be aware that such a system may well lead to selection for over-representation of qualities such as egotism and conceit in the treasury. Secondly and more importantly the chance of formation of castes which may be increasingly genetically differentiated from each other (because of so to speak "insemination of the converted") seems to me not wildly improbable. For a democratic society this could pose a problem of principle of the first magnitude.

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DR. H. J. MULLER writes: There is much that I agree with in Dr. Beardmore's letter. If he will look up my article in *The Control of Human Heredity and Evolution*, referred to in my previous letter, or my chapter in *The Population Crisis and the Use of World Resources* (The Hague: W. Junk, 1964; Bloomington: Indiana University Press, 1965) he will find that I emphasized virtually the same aims as he did. The space limitations of a letter caused my list there to be shorter, but I believe the very general faculties there mentioned do, when taken in conjunction, encompass or result in the more specific ones detailed by him.

However, I do not agree that those more general characteristics often conflict. Rather, they tend to reinforce one another's action. They also help to guard against the selection of paranoid personalities, that I warned against in these articles. Likewise protective should be the long period following the donor's death, and

also the counselling, especially since such a considerable part of the judgement must in "the foreseeable future" be formed on subjective grounds and on grounds of over-all performance.

Yet even personality is proving increasingly analysable. Moreover, the important share of inheritance in it is becoming clearer (see for instance James Shields, *Monozygotic Twins* (London, 1962; Oxford University Press)). As for castes, the very personality traits here aimed at work against their existence, and a gradual percolation of these traits, genetic and cultural, both outward and "downward", would *ipso facto* be encouraged by their intensification at the levels of the more fortunately endowed individuals.

ABORTION

To the Editor, Eugenics Review

Sir,—Mr. Herbert Brewer's logic is hard to fathom. He argues that abortion ought not to be permitted in cases of rape, for the singular reason that rape does not always result in pregnancy. Is it not sufficient to know that it sometimes does? (As it did in the case of Rex v. Bourne that altered English common law on abortion in 1938.)

Perhaps sensing his shaky ground, Mr. Brewer passes hastily to the supposed "formidable judicial and administrative problems" that legislation on grounds of rape would involve. I am happy to inform him that these have been successfully overcome in such countries as Denmark, Norway and Sweden, and that nobody now seriously supposes they could not be overcome here, too.

Mr. Brewer seems anxious to maintain the Ultimate Deterrent of the Unwanted Baby for those "females", to quote his words, who acquiesce "in sexual liberties up to the point of no return". This attitude is not of course unfamiliar to many of us.

Much ill-health, as Mr. Brewer rightly suggests, results from repeated and unnecessary abortion, as it does of course also from excessive child-bearing. The answer to this is inevitably to be found in much improved contraceptive facilities combined with a more realistic and humane abortion law aimed at reducing unskilled practice—a solution that the Abortion Law Reform Association has been advocating these many long years.

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